4C - Oxygen

Performance Characteristics

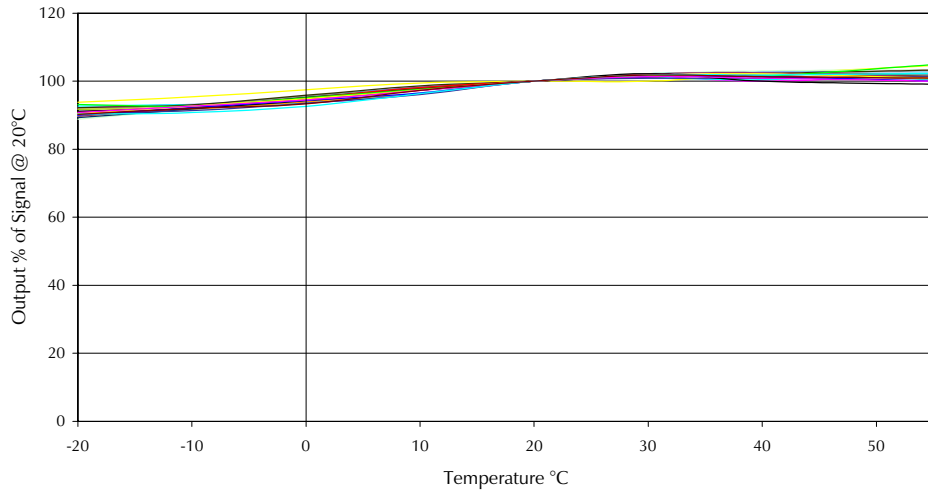|	
Nominal Range	0-25% Oxygen
Max Overload	30% Oxygen
Expected Operating Life	One year in Air
Output Signal	0.225 ± 0.025mA in Air
T_{95} Response Time	≤15 seconds
Temperature Range	-20°C to +50°C
Temperature Coefficient	0.2% signal/°C
Pressure Range	Atmospheric ± 10%
Pressure Coefficient	<0.02% signal/mBar (typ. 0.01%)
Operating Humidity	0 to 99% RH non-condensing
Long Term Output Drift	<2% signal/month (typically <5% over Operating Life)
Recommended Load Resistor	100Ω

Physical Characteristics

Weight	17g (approx.)
Position Sensitivity	None
Storage Life	Six months in CTL container
Recommended Storage Temperature	0-20°C

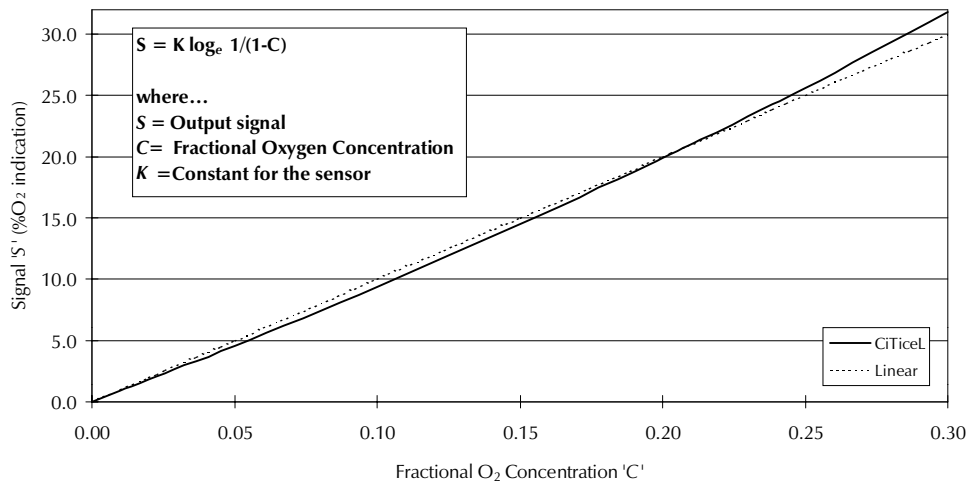**IMPORTANT NOTE**: Connection should be made via PCB sockets only. Soldering to the pins will seriously damage your sensor.

DO NOT OBSCURE

TOP

Ø12.25

Ø20.4 $^{+0}_{-0.3}$
Inc. label

Foam Gasket (compresses flush)

16.6 $^{+0}_{-0.3}$

4

4.3

Ø1.4

Ø1.5

0.6 recess

Ø18

Plastic locating pin

+ve

-Ve

6.75

Ø13.5

All dimensions in mm
All tolerances ±0.15mm unless othewise stated

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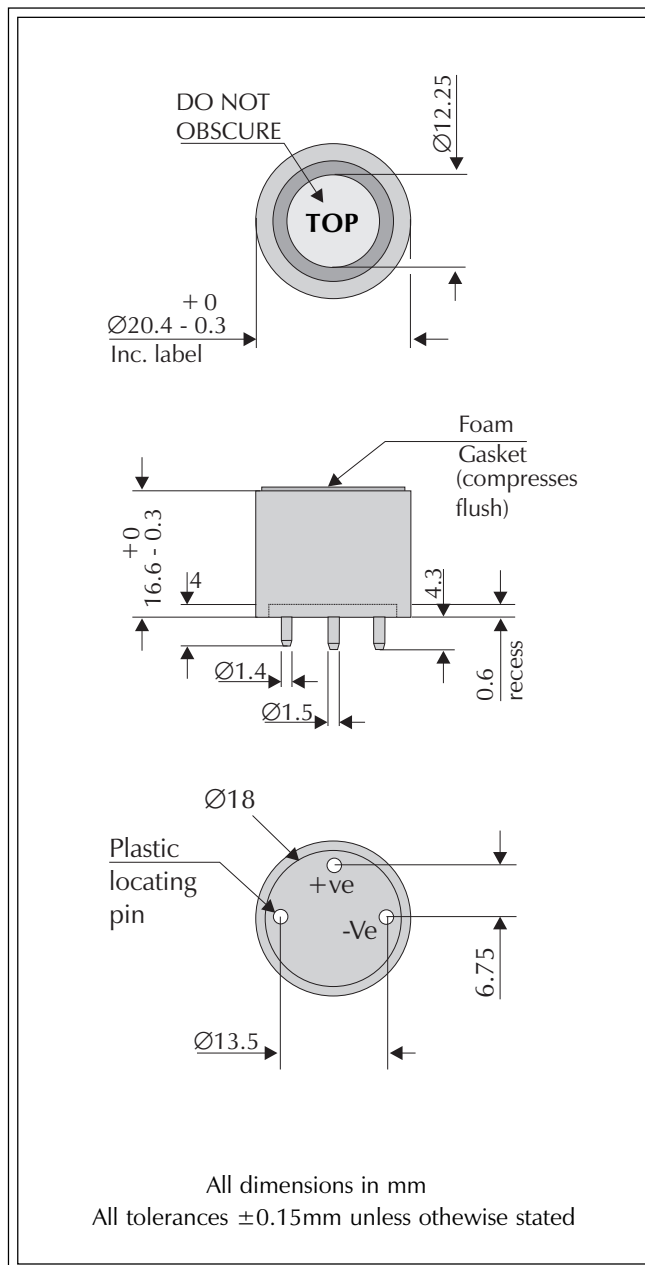
4C Oxygen CiTiceL - Output Vs Temperature

Output % of Signal @ 20°C vs Temperature °C

Fractional graph showing output % of signal vs temperature from -20 to 55°C, output ranging roughly 90-105%.

Output Signal vs Concentration

$$S = K \log_e 1/(1-C)$$

where…
S = Output signal
C = Fractional Oxygen Concentration
K = Constant for the sensor

Signal 'S' (%O$_2$ indication) vs Fractional O$_2$ Concentration 'C'

Legend:
— CiTiceL
···· Linear